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10/029,645	12/21/2001	Kumar Ramaswamy	PU010322	5062

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EXAMINER

YOUNG, JANELLE N

ART UNIT PAPER NUMBER

2618

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/029,645	RAMASWAMY ET AL.	
	Examiner	Art Unit	
	Janelle N. Young	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 2 is objected to because of the following informalities: the word "thrid" (page 1, line 23) is misspelled the word should read "third". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 7-15, 17-25, & 17-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Luly et al. (US Patent 20020140617).

As to claim 1, Luly et al. teaches a multi-band reflector antenna (fig. 1:10 of Luly et al.); which reads on claimed apparatus, comprising:

a one or more transmitter or receiver feeds; which reads on claimed first signal point; a second signal point; and a third signal point (Abstract and Page 2, Para 0014 & 0023 of Luly et al.);

a Ka-band low-noise block-down converter; which reads on claimed first signal receiving means coupled between said first signal point and said third signal point for receiving a first RF signal, said first signal receiving means down-converting said first RF signal for providing a Ka-band downlink signal; which reads on claimed; first down-converted signal, at said third signal point (Page 1, Para 0011; Page 2, Para 0014 & 0023; and Page 4, Para 0035-0037 of Luly et al.);

a Ku-band low-noise block-down converter; which reads on claimed second signal receiving means, coupled between said second signal point and said third signal point for receiving a second RF signal, said Ku-band direct broadcast satellite television signal; which reads on claimed; second signal receiving means down-converting said second RF signal for providing a second down-converted signal at said third signal point (Page 1, Para 0011; Page 2, Para 0014 & 0023; and Page 4, Para 0035-0037 of Luly et al.); and

a Ka-band up converter or transmitter; which reads on claimed signal transmitting means, coupled between said first and second signal points and said third signal point for receiving a third RF signal from said third signal point, said signal transmitting means up-converting said third RF signal for selectively providing an up-converted signal at one of said first and second signal points in response to a selection signal (Page 1, Para 0011; Page 2, Para 0014 & 0023; and Page 4, Para 0035-0037 of Luly et al.).

As to claims 2 & 5, Luly et al. teaches a multi-band reflector antenna (fig. 1:10 of Luly et al.); which reads on claimed apparatus, wherein said first down-converted signal, said second down-converted signal, and said third RF signal are present at said third signal point simultaneously and/or wherein said a control signal is being present at said third signal point simultaneously with said first down-converted signal, said second down-converted signal and said third RF signal (Page 2, Para 0021-0022 of Luly et al.).

As to claims 3-4, Luly et al. teaches a multi-band reflector antenna (fig. 1:10 of Luly et al.); which reads on claimed apparatus, further comprising: coaxial cables and modem; which reads on claimed control means, for generating said channel selection and other signal processing; which reads on claimed selection signal, in delivering a 30 GHz uplink or transmit signal to a Ka-band feed; which reads on claimed response to a control signal from an indoor DBS receiver; which reads on claimed indoor unit (Fig. 6:52; Page 1, Para 0006; Page 3, Para 0033; and Page 5, Para 0043-0044 of Luly et al.).

As to claims 7-8, Luly et al. teaches a multi-band reflector antenna (fig. 1:10 of Luly et al.); which reads on claimed apparatus, wherein said first and/or second RF signal includes one of a Ku-band direct broadcast satellite television service; which reads on claimed television signal, and a Ka-band two-way broadband internet access; which reads on claimed internet protocol signal (Abstract; Page 1, Para 0007-0008 & 0011; and Page 2, Para 0017-0018 & 0021 of Luly et al.).

As to claim 9, Luly et al. teaches a multi-band reflector antenna (fig. 1:10 of Luly et al.); which reads on claimed apparatus, wherein said first and second RF signals are signals transmitted from respective satellites (Abstract; Page 1, Para 0004-0007 & 0011; and Page 2, Para 0017, 0019, & 0021 of Luly et al.).

As to claim 10, Luly et al. teaches a multi-band reflector antenna (fig. 1:10 of Luly et al.); which reads on claimed apparatus, wherein said first and second RF signals are transmitted from respective ground terminal and/or geostationary antenna; which reads on claimed terrestrial signal distribution source (Abstract; Page 1, Para 0002, 0007, & 0011; and Page 3, Para 0032-0033 of Luly et al.).

Regarding claim 11, see explanation as set forth regarding claim 1 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the apparatus (module) steps.

Regarding claim 12, see explanation as set forth regarding claim 2 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the apparatus (module) steps.

Regarding claim 13, see explanation as set forth regarding claim 3 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the apparatus (module) steps.

Regarding claim 14, see explanation as set forth regarding claim 4 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the apparatus (module) steps.

Regarding claim 15, see explanation as set forth regarding claim 5 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the apparatus (module) steps.

Regarding claim 17, see explanation as set forth regarding claim 7 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the apparatus (module) steps.

Regarding claim 18, see explanation as set forth regarding claim 8 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the apparatus steps.

Regarding claim 19, see explanation as set forth regarding claim 9 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the apparatus (module) steps.

Regarding claim 20, see explanation as set forth regarding claim 10 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the apparatus (module) steps.

Regarding claim 21, see explanation as set forth regarding claim 1 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the method steps.

Regarding claim 22, see explanation as set forth regarding claim 2 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the method steps.

Regarding claim 23, see explanation as set forth regarding claim 3 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the method steps.

Regarding claim 24, see explanation as set forth regarding claim 4 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the method steps.

Regarding claim 25, see explanation as set forth regarding claim 5 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the method steps.

Regarding claim 27, see explanation as set forth regarding claim 7 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the method steps.

Regarding claim 28, see explanation as set forth regarding claim 8 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the method steps.

Regarding claim 29, see explanation as set forth regarding claim 9 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the method steps.

Regarding claim 30, see explanation as set forth regarding claim 10 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the method steps.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 6, 16, & 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Luly et al. (US Patent 20020140617) and further in view of Krasner (US Patent 5825327).

As to claim 6, Luly et al. teaches a two-way or bi-directional communication multi-band reflector antenna (fig. 1:10); which reads on claimed apparatus, wherein said first down-converted signal, said second down-converted signal, and said third RF signal are present at said third signal point simultaneously and/or wherein said a control signal is being present at said third signal point simultaneously with said first down-converted

signal, said second down-converted signal and said third RF signal (Page 2, Para 0021-0022 of Luly et al.).

What Luly et al. does not explicitly teach is a GPS signal being present simultaneously with a control signal (Col. 2, lines 6-37 and Col. 7, line 59-Col. 8, line 15 of Krasner).

However Krasner teaches a multi-band reflector antenna; which reads on claimed apparatus, wherein a GPS signal is being present simultaneously at said third signal point with control signal, said first down-converted signal, said second down-converted signal and said third RF signal (Col. 4, line 38-Col. 5, line 28 in correspondence to Col. 26, lines 47-53 of Krasner).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a GPS receiver having multiple GPS antennas transmitting and receiving signals simultaneously (Col. 10, line 14-Col. 11, line 4 of Krasner), as taught by Krasner, in the two-way communication multi-band reflector antenna of Luly et al., because Ku-band signals, Ka-band signals, control signals, and RF signals are present at the antennas simultaneously and/or wherein said a is being present at said third signal point simultaneously with said first down-converted signal, said second down-converted signal and said third RF signal (Page 2, Para 0021-0022 of Luly et al.).

The motivation of this combination would be in the areas of personal and property tracking. The communication link allows a GPS receiver located on a mobile person or object to transmit its accurately determined position to remote locations,

which monitor this activity. Applications of the technology include security, truck fleet tracking, emergency response, inventory control, etc. Moreover, these systems use conventional serial correlating approaches to acquiring and tracking GPS satellite signals (Col. 1, line 55-Col. 2, line 2 of Krasner). In addition, Luly et al. already teaches data returning from the Internet to the provider's data center in response to the subscriber's input, from where it is transmitted up to the data satellite which in turn transmits the data to the subscriber's geographical location where the satellite transmission is received by the subscriber's ground terminal antenna (Page 1, Para 0007 of Luly et al.). **Note:** The two-way or bi-directional communication multi-band reflector antennas are collated along the geostationary arc with the satellite constellation consisting of the satellites placed in know geographical positions (Page 5, Table 1 of Luly et al.). Therefore, when data is sent from a particular subscriber to the data center, the location of the antenna can be determined and tracked for any emergencies and/or inventory control (Abstract of Krasner).

Regarding claim 16, see explanation as set forth regarding claim 6 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the apparatus (module) steps.

Regarding claim 26, see explanation as set forth regarding claim 6 (apparatus claim) because the claimed method for two-way or bi-directional communication would perform the method steps.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle N. Young whose telephone number is (571) 272-2836. The examiner can normally be reached on Monday through Friday: 8:30 am through 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JNY
June 19, 2006


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